Light and Menstruation

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Previous studies suggest that light therapy, as used to treat seasonal affective disorder, may be beneficial for pre-menstrual depressive disorders. We conducted a six-menstrual cycle randomized, double-blind, counter-balanced, crossover study of dim vs. bright light therapy in women with late luteal phase dysphoric disorder (LLPDD). Fourteen women who met DSM-III-R criteria for LLPDD completed two menstrual cycles of prospective baseline monitoring of pre-menstrual symptoms, followed by two cycles of each treatment. During the 2-week luteal phase of each treatment cycle, patients were randomized to receive 30 min of evening light therapy using: (1) 10000 lx cool-white fluorescent light (active condition); or (2) 500 lx red fluorescent light (placebo condition), administered by a light box at their homes. After two menstrual cycles of treatment, patients were immediately crossed over to the other condition for another two cycles. Outcome measures were assessed at the mid-follicular and luteal phases of each cycle. Results showed that the active bright white light condition significantly reduced depression and pre-menstrual tension scores during the symptomatic luteal phase, compared to baseline, while the placebo dim red light condition did not. These results suggest that bright light therapy is an effective treatment for LLPDD.

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OBJECTIVE: To study the influence of the daily variation in ambient light and menstrual status on mood fluctuation in a nonclinical population of young women. METHODS: Women kept mood diaries (two per day) over a period of 32 days that straddled the spring equinox. One group believed the purpose of the study was to investigate women's moods are significantly elevated by light, and this elevation occurs irrespective of the subjects knowledge of the experimental purpose. No evidence for a depression of women's mood in the premenstruum was found, although women who claimed to suffer from premenstrual syndrome (PMS) showed more reversals of their mood during the 32 days records were kept. CONCLUSIONS: The results highlight the fact that an individual's mood may be influenced by the levels of ambient light as well as the photoperiod.

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OBJECTIVE: Both late luteal phase dysphoric disorder (LLPDD) and seasonal affective disorder are cyclical disorders often manifested by "atypical" depressive features. The goal of this study was to determine whether patients with LLPDD demonstrate substantial seasonal variation in symptoms. METHOD: Consecutive female patients attending a subspecialty clinic in a university teaching hospital were assessed by means of DSM-III-R criteria. All subjects completed the Seasonal Pattern Assessment Questionnaire, modified to include items on the seasonality of premenstrual symptoms. The results were compared with those of a group of female nonclinical subjects (N = 50). RESULTS: One hundred patients met the DSM-III-R criteria for LLPDD. Compared to the nonclinical group, the LLPDD patients had a significantly higher mean global seasonality score (an index of seasonality of mood and vegetative symptoms) and a significantly higher rate of seasonal affective disorder (38% versus 8%) as determined by Seasonal Pattern Assessment Questionnaire criteria. Twenty-five percent of the LLPDD group rated their seasonal variation in premenstrual symptoms as marked or severe, while 30% considered seasonal changes in overall symptoms to be a marked or severe problem. CONCLUSIONS: These results suggest that patients with LLPDD have substantial seasonal patterns in mood and premenstrual symptoms. These seasonal patterns have implications for the clinical assessment and treatment of LLPDD. For example, light therapy may be beneficial for women with seasonal worsening of LLPDD.